

### **REMARKS/ARGUMENT**

Claims 1-6, 8-12, 25-33, 35-42, 44 and 46-51 are allowed.

Objected to Claims 13, 43, 52, 53 and 54 have been amended, per Examiner's recommendations, to overcome the objections due to informalities. According, the objection to Claims 13-18, 20-24, 43, 53 and 54 are overcome and Claims 13-18, 20-24, 43 and 54 stand allowable.

1) Claim 53 is rejected under 35 U.S.C. 102(b) as being anticipated by Allezard. Applicant respectfully traverses this rejection, as set forth below.

In order that the rejection of Claim 53 be sustainable, it is fundamental that "each and every element as set forth in the claim be found, either expressly or inherently described, in a single prior art reference." *Verdegall Bros. v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). See also, *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989), where the court states, "The identical invention must be shown in as complete detail as is contained in the ... claim".

Furthermore, "all words in a claim must be considered in judging the patentability of that claim against the prior art." *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970).

Independent Claim 53, as amended, requires and positively recites, a method for **performing estimation** within a communication system, comprising: “determining in an apparatus a cutoff frequency based on an expected Doppler frequency associated with a user” and **“estimating a phase and an amplitude of each multipath component** associated with a received signal based on the determined cutoff frequency”.

In contrast, Allezard discloses a system for use in an aircraft for obstacle detection. The terms “estimation” and “estimating” cannot be found anywhere in Allezard. The reason the terms are not in Allezard is that Allezard does not teach or suggest any kind of “estimation”. Allezard specifically teaches:

The main function of the processing circuits is to **“analyze”** the phase shifts between the waves received by the two antennas 5, 6. This phase shift is a “measure” of the bearing to the obstacle, i.e. the angle between the direction of the flight of the aircraft-obstacle and the plane of flight or the horizontal plane. The form of the spectrum of the received signal is now co-determined by the direction of flight-obstacle and the resultant Doppler shift, as well as by the nature of the obstacle itself. This spectrum is analyzed by the circuit 33 (col. 4, lines 12-22).

The function of the control loop is to **“control the amplitude”** of the received signal and the Doppler tracking loop serves to standardize the amplitude and the maximum frequency, respectively, of the output signals of the multipliers 21 and 24 (col. 4, lines 23-27).

Allezard actually analyses the phase shifts (i.e., which are measured -- NOT estimated) -- there is no estimating. As such, Allezard fails to teach or suggest, **“estimating a phase ... of each multipath component** associated with a received signal ...”, as required by Claim 53.

Further, Allezard specifically teaches that the function of its control loop is to “control the amplitude” of the received signal -- NOT to “estimate the amplitude” of each

multipath component. As such, Allezard fails to teach or suggest, “**estimating ... an amplitude of each multipath component** associated with a received signal ...”, as required by Claim 25.

In light of the above, it is fairly clear that Allezard fails to teach or suggest, a method for **performing estimation** within a communication system, comprising: “**estimating a phase and an amplitude of each multipath component** associated with a received signal based on the determined cutoff frequency”, as required by Claim 53. Accordingly, the 35 U.S.C. 102(e) rejection of Claim 53 is improper and must be withdrawn.

In the event Examiner’s maintains his rejection, Applicants request that Examiner identify with more specificity the above high-lighted limitations in the Allezard reference (i.e., with specific line numbers and reference numerals).

An amendment after a final rejection should be entered when it will place the case either in condition for allowance or in better form for appeal. 37 C.F.R. 1.116; MPEP 714.12. This amendment places the case in condition for allowance. At a minimum, it places the case in better form for appeal by overcoming the claim objections.

Claims 26-30, 35-39, 51 and 52 are allowed. Objected to and rejected Claims 1-6, 8-18, 20-24, 31-33, 40-44, 46-50, 53 and 54 have been amended and stand allowable. Claim 53 stands allowable over the cited art for the reasons set forth above. Applicants

respectfully request withdrawal of the rejections and objections and allowance of the application at the earliest possible date.

Respectfully submitted,



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